The Centre for Information Management

The Digital Transformation of International Trade: Workshop Summary and Record

Held at Stratford, London, September 13th, 2022

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This version Nov 15th, 2022

This is a summary of a workshop on the digital transformation of international trade, held at Loughborough University, London Campus, Here East, Olympic Park, Stratford on 13th September, 2022. A detailed record of all the workshop discussions is also available.

Introduction

Digital transformation is projected to offer cost reductions in global international trade of 80% and increased trade volumes of 43%. This amounts to some $9trn or around 10% of global GDP, with particularly large benefits for smaller companies and jurisdictions. As illustrated by the ongoing issues of trade with Northern Ireland, the implications of not having a digital trade system in place are problematic and costly.

The opportunity of digital transformation of international trade is being actively pursued, by both policy makers and business – with the UK leading G7 efforts to introduce model law for electronically transferable records (MLETR) and the International Chamber of Commerce ICC Digital Standards Initiative developing the required global standards to automate international trade.

This workshop was bringing together researchers, policy makers and practitioners from the UK and Europe, to discuss the key adoption challenges – technological, legal, financial, operational and political – in the digital transformation of international trade.

The workshop goals were identifying the business, strategic and political barriers to successful adoption and taking first steps towards developing a research agenda for support of this digital transformation, including.

- What are the key research questions that need to be answered for the private and public sectors to fully engage in the digital transformation of international trade?
- Can digital transformation also support wider goals such sustainability and protection of our environment and social inclusion?
- Are there negative or unintended consequences that must be addressed?

Key point summary

The following highlights some of the key points from the workshop.

The prize

1) The digital vision.

Currently, much of the personnel employed in trade processing are simply checking paper documents. Example was provided by a participant of one of his companies that had 7,000 people in Mong Kok in Hong Kong https://en.wikipedia.org/wiki/Mong_Kok , one of the most expensive locations for real estate in the world, looking at the documents and then deciding whether or not to pay.

The vision offered by digital transformation of trade is the elimination of unnecessary costs through establishing a single coherent framework for recording and communicating all the data requirements for executing an international transaction. Data should be entered once, verified and then good for all subsequent participants in the value chain. As one workshop contributor put it "Suppose I'm a soft fruit farmer in Kent and I'm so far been selling my fruits to France and I am put off with actually sending it now because of the paperwork it's just all too difficult. But in my future, I may be able to access a digital environment, sensible website which asks me, "what do you want to do", and I can say "I want to sell strawberries to France", and I am told "This is all the data you need to enter to satisfy all the actors in that supply chain regulatory, commercial, legal the lot. Enter all that information upfront and that it's only about 5% more than you would enter at the time of striking the bargain the first place. Put it in an environment where it is not just assured by the ecosystem, but also accessible to all of those actors, with access carefully calibrated to match their permissions or their entitlements."

2) Large scale benefits.

Fully exploited, the benefits of such digitalisation appear very large. One current analysis – presented at the workshop – finds that the shift to digital processing could lower direct costs (border processing costs and transport costs) for Commonwealth countries by around 75%, resulting in a boost to trade of around $90bn. There is even greater potential from the employment of electronic records in trade finance which could have an even bigger impact by overcoming financial barriers and allowing much greater trade opportunities, potentially as high as $1.1bn an increase of over 30% in Commonwealth trade. Digital transformation is also more, not just costs and trade volumes. Meaningful trade level data is critical to understanding the impact of trade on emissions and climate change. Reduction of costs and barriers to finance and trade is central to addressing social exclusion: with SMEs, often female entrepreneurs, especially in less developed countries do not have adequate opportunities for participation in international trade.

There is considerable uncertainty about estimates of this kind. Those presented at the workshop were based on a range of qualitative information from interviews with strong assumptions about the time scale over which benefits could be achieved. But even if they impact is an order of magnitude smaller the benefits are still substantial.

The challenges

Presentations from conference participants highlighted three critical challenges in order to achieve digital transformation of trade.

- The first is legal. The recognition of digital documents as having the same more in law as paper documents. This is the recommendation of the UNCITRAL (the UN body that co-ordinates changes in law at a global level) model law on electronically transferable records (MLETR). Here the UK is in a leading position. 80% of law used in international trade is English law. The Electronic document bill going through parliament as of now and so by next year we will have

implemented MLETR in the law of England and Wales. Other G7 nations are not far behind and the G20 is paying close attention.
- The second is standards. Here the ICC digital standards initiative (DSI) is critical. The point is not to create new standards or be a standard body, but to highlight the fragmentation of standards across the many processes involved in international trade and engage with the key standards bodies, not just ISO, but national standards bodies and others like GS1 and UC CEFACT.
- The third part of the trilogy is adoption of technology. You have to get people to adopt the digital technology made possible by legal framework and the standards that will support the automation of trade and achieve the potential benefits

A major question – that kept arising in the workshop discussion, as put by one participant, is this is a HTTP moment? i.e. what once we have the legal framework in place and the issues of standards are being addressed, will everything then follow easily? It may not be so easy. Still there is a major effort to achieve co-ordinated change. Hence, we need a lot of work to get all the actors to change.

Part of addressing these challenges is not holding back, engaging directly in practical developments. Here the UK Centre for Trade and Digital Innovation (C4DTI) is pressing ahead, engaging with Singapore. Singapore, also with other jurisdictions such as the Netherlands and Australia.

We also need deeper understanding of the application of the technologies, including inter alia, addressing identity where the global LEI may be central; ensuring trust, ideally the principles of zero trust architecture is needed, in which you do not need to trust every intermediary but can trust the data as it is moves from one end of the transaction to the other; and appropriate choices amongst the various solutions from traditional databases to distributed ledger.

The path forward
Ultimately this is a collective action problem: Collaboration between all stakeholders is required. Academia has a key role, for example in provide cost reduction evidence to industry. Policy makers need to ensure law is changed. Industry needs to be willing to interact with each other digitally. Need firms in the whole supply chain to make the change. Network effects will be crucially important, making initial progress can trigger a 'critical mass' of adoption.

For this workshop, the key steps going forward are building a wider research network. This is a call for action. We need multidisciplinary perspectives.

Bringing in academic perspectives will also bring in a host of related issues. To mention some – the new technology of payments, not just Cryptocurrency and CBDC but all the technological changes in payments are part of the wider discussion of digitalisation of trade. We need to address both the flow of data/ information around payments and the actual flow of funds. There will be concerns about risks and national sovereignty: What will ultimately be allowed in terms of or required in terms of data localization and allowed in terms of the free flow of data across borders? How will privacy and confidentiality be assured? There are many issues about digital products and these are adequately covered by WTO agreements that date back to what is essentially a pre digital era. Ethics, consumer protection and intellectual property of algorithms and labour rights cannot be forgotten. There will always be concerns about globalisation, that not everyone benefits.

So the further academic contribution is to make sure that the digital transformation of trade is done in the right way, designed from the beginning to address these problems not make them worse.

At the same time, better to start the process of digitalisation (e.g. promoting standards) than wait for an ideal solution to all these challenges to emerge.